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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/477,034	12/31/1999	LANCE W. DOVER	042390.P6115	8629

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EXAMINER

SURYAWANSHI, SURESH

ART UNIT	PAPER NUMBER
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2185

DATE MAILED: 02/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/477,034

Applicant(s)

DOVER ET AL.

Examiner

Suresh K Suryawanshi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/23/02 amendments.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-29 are presented for examination.
2. Claim 30 cancelled.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4,7,9,11-14,17,20,26,-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Coppola et al (US Patent no 4,224,506).

5. As per claims 1, 11 and 17, Coppola et al teach

maintaining a first value for a first counter based on a content of a volatile memory [col. 1, lines 31-40; col. 4, lines 30-43; fig. 1C, volatile counter 50];

maintaining a second value for a second counter based on a content of a non-volatile memory [col. 1, lines 31-40; col. 4, lines 30-43; fig. 1F, memory 94]; and

controlling updates [col. 4, lines 30-43; col. 6 lines 24-25, 32-34].

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6. As per claims 2, 13, 24 and 28, Coppola et al teach that the controlling comprises updating the second value for the second counter when the first value for the first counter meets a predetermined condition [col. 4, lines 30-43].

7. As per claim 3, Coppola et al teach that the controlling comprises updating the first value for the first counter in response to the reading of the monotonic count [col. 4, lines 30-37].

8. As per claims 4, 14, 25 and 29, Coppola et al teach that the controlling comprises updating the second value upon a power reset [col. 1, lines 31-40].

9. As per claims 5, 15, 18 and 21, Coppola et al teach that the controlling comprises updating the second value by programming a bit location or location in a flash memory [inherent in the process of writing the new value to a memory; fig. 1F, memory 94].

10. As per claims 7 and 9, Coppola et al teach that displaying the monotonic counter based on a content of a volatile memory or non-volatile memory depending the condition [col. 3, lines 18-19; col. 4, lines 60-62; col. 4, lines 30-57].

11. As per claims 8 and 10, Coppola et al teach that updating the count value for the monotonic counter [col. 4, lines 30-43; data been written into the memory 94].

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12. As per claims 12 and 27, Coppola et al teach that the control logic controls the volatile counter to update the first value when the first and second values are read [col. 5, lines 15-42; as values of counter 50 and memory 94 are read].

13. As per claim 20, Coppola et al teach

a volatile memory [col. 1, lines 31-40; col. 4, lines 30-43; fig. 1C, volatile counter 50];

a non-volatile memory [col. 1, lines 31-40; col. 4, lines 30-43; fig. 1F, memory 94]; and

circuitry to maintain a count value ..., and to update the count value by a number in response to a powering on condition for the circuitry [col. 1, lines 31-40; col. 4, lines 30-43].

14. As per claim 23, Coppola et al teach

one or more registers to store a first value [col. 1, lines 31-40; col. 4, lines 30-43; fig. 1C, volatile counter 50];

a first adder to maintain the first value [inherent in system as incrementing the count];

a flash memory [inherent to a computer system having a flash memory];

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one or more registers to store a second value [col. 1, lines 31-40; col. 4, lines 30-43; fig. 1F, memory 94];

a second adder [inherent in system as incrementing the count]; and

a control engine [col. 4, lines 30-43].

15. As per claim 26, Coppola et al teach

(a) a monotonic counter comprising:

(i) a volatile counter [fig. 1C, volatile counter 50; col. 4, lines 30-43];

(ii) a non-volatile counter [fig. 1F, memory 94; col. 4, lines 30-43], and

(iii) control logic [col. 4, lines 30-43; col. 6 lines 24-25, 32-34]; and

(b) one or more processors to read the first and second values [inherent in a computer system to have one or more processors].

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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17. Claims 6,16,19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coppola et al (US Patent no 4,224,506) in view of Pockrandt (US Patent no 4,768,210¹).

As per claims 6, 16, 19 and 22, Coppola et al disclose the invention substantially. Coppola et al do not expressly disclose about having the memory in tow or more divided portion. But a routineer will know about a flash memory as a flash memory is well known and therefore the memory portioning and storing. However, Pockrandt clearly discloses how utilizing a memory in portions as main and background [fig. 1, col. 3, lines 1-9; col. 1, lines 55-68]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cited references as both are directed to the improved monotonic counters. Moreover, Pockrandt's method of portioning the memory and keeping the values of monotonic counter as main and background count certainly adds benefits to the invention as now one will be able to have a backup copy or sequential copy of count.

Response to Arguments

18. As applicants submitted an argument against the previous prior art by Pockrandt (US Patent no 4,768,210) that the method disclosed was for the non-volatile storage of the counter and not having a volatile and non-volatile storage together. Examiner believes that the new prior art by Coppola et al (US Patent no 4,224,506) discloses clearly utilizing both non-volatile and volatile storage together in generating the monotonic counter [col. 1, lines 31-40].

¹ Reference cited in the prior office action in paper no 12

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suresh K Suryawanshi whose telephone number is 703-305-3990. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 703-305-9717. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

sks
January 29, 2003


THOMAS LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100